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## FISCAL TOPICS

Fiscal Services Division

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## Tax Credit: Renewable Energy Tax Credit

The Renewable Energy Tax Credit is available to a producer or purchaser of eligible energy from an energy facility approved by the Iowa Utilities Board (IUB) under Iowa Code chapter [476C](#). Eligible facilities include wind energy conversion, biogas recovery, biomass conversion, methane gas recovery, solar energy conversion, and refuse conversion. The credit may also be earned for on-site consumption by the producer under specific circumstances. To be eligible for IUB approval, a facility must be located in Iowa and must have been originally placed in service on or after July 1, 2005, but before January 1, 2018.

The tax credit is equal to \$0.015 per kilowatt-hour of electricity generated, or \$4.50 per million British thermal units (Btu) of heat for a commercial purpose, or \$4.50 per million Btu of methane or other biogas used to generate electricity, or \$1.44 per 1,000 standard cubic feet of hydrogen fuel generated by and purchased from an eligible renewable energy facility. Tax credits are earned for a 10-year period beginning on the facility's original in-service date. The total amount of wind energy capacity allowed to qualify for tax credits is 363.0 megawatts and the maximum capacity for other renewable energy projects is 63.0 megawatts.

Projects approved for the Renewable Energy Tax Credit are not allowed to benefit from Iowa's [Wind Energy Production Tax Credit](#), a program that also provides tax credits for electricity produced through wind power.

### Tax Credit Background

- Enabling Legislation: [2005 Iowa Acts, chapter 160](#) (Renewable Energy Tax Credits Act)
- Iowa Code Citations:
  - [Chapter 476C](#) -- Program Description
  - [Section 422.11J](#) -- Individual Income Tax
  - [Section 422.33\(16\)](#) -- Corporate Income Tax
  - [Section 422.60\(7\)](#) -- Franchise (Bank) Tax
  - [Section 423.4\(4\)](#) -- Sales and Use Tax Refund
  - [Section 432.12E](#) -- Insurance Premium Tax
- Administrative State Agencies: IUB and Iowa Department of Revenue
  - Sunset Date: January 1, 2018 (credits may be earned for up to 10 years after the sunset date)
  - Transferable: Yes
  - Refundable: No
  - Carryforward: Unused credits may be carried forward for up to seven tax years
  - Tax Review Committee Review Year: 2014

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### More Information

Department of Revenue Contingent Liabilities Report: [tax.iowa.gov/report/Contingent-Liabilities](http://tax.iowa.gov/report/Contingent-Liabilities)

Department of Revenue Tax Credit Review:  
[tax.iowa.gov/sites/files/idr/WEP\\_and\\_RE\\_Tax\\_Credit\\_Evaluation\\_Study.pdf](http://tax.iowa.gov/sites/files/idr/WEP_and_RE_Tax_Credit_Evaluation_Study.pdf)

Department of Revenue Tax Credits Users' Manual:  
[tax.iowa.gov/sites/files/idr/Tax\\_Credits\\_Users\\_Manual\\_2017\\_\(1\).pdf](http://tax.iowa.gov/sites/files/idr/Tax_Credits_Users_Manual_2017_(1).pdf)

Legislative Services Agency Individual Income Tax Guide: [www.legis.iowa.gov/docs/publications/LG/711304.pdf](http://www.legis.iowa.gov/docs/publications/LG/711304.pdf)

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[www.legis.iowa.gov](http://www.legis.iowa.gov)

## Legislative History

As originally enacted in 2005, the \$0.015 per kilowatt-hour electricity tax credit and the related tax credits for other eligible energy sources were available for projects placed in service between July 1, 2005, and December 31, 2011. Also as originally enacted, the maximum amount of nameplate capacity the IUB could approve for the Renewable Energy Tax Credit program was 90.0 megawatts (wind) and 10.0 megawatts (other energy).

In subsequent years, the placed-in-service deadline was extended several times until it reached the final date of December 31, 2017. Over the years, the maximum megawatt capacity that could qualify for the credit was increased to 363.0 megawatts (wind) and 63.0 megawatts (other energy). Increases in the total megawatt limits coincided with reductions in the megawatt limits for the Wind Energy Production Tax Credit.

## Tax Credit Review, Usage, and Future Liability

According to the July 2018 update from the IUB on [approved tax credit projects](#), 72 projects were approved for the Renewable Energy Tax Credit over the course of the program. Projects were placed in service during the 2007 through 2018 time frame. With the 10-year tax credit window, the earliest projects have ceased earning credits and the final operational project should expire in 2028. Due to credit carryforward provisions, actual redemption of the tax credits could continue for up to seven additional tax years after the final credit is earned.

The following is based on a Department of Revenue review of the Renewable Energy Tax Credit released in December 2014, on the most recent update (July 2018) on approved tax credit projects from the IUB, and on 2017 U.S. Energy Information Administration (USEIA) wind energy data ([Form EIA-860](#)).

- Non-Wind Projects:
  - Twenty-one non-wind energy projects were approved for the Renewable Energy Tax Credit, representing 44.8 megawatts of production capacity. The first project became operational in May 2007, and the final project in May 2017. With the December 31, 2017, placed-in-service deadline and the 63.0 megawatt program maximum, 18.2 megawatts of non-wind production capacity credits remained unclaimed upon expiration.
  - Three projects comprising 165.0 billion Btu of annual heat production for commercial use were approved for the Renewable Energy Tax Credit. The three projects became operational in 2005, 2007, and 2012. Each project was approved for 55.0 billion Btu of annual heat production. The total program limit was 167.0 billion Btu for all approved projects.
- Wind Projects:
  - Forty-eight<sup>1</sup> wind energy projects were approved for the Renewable Energy Tax Credit, totaling 128.1 megawatts of nameplate capacity. The first project became operational in March 2007, and the final project in December 2017. With the December 31, 2017, placed-in-service deadline, 234.9 megawatts of wind capacity credits remained unclaimed at the program's expiration.
  - For reporting years 2007 through 2013, \$21.8 million in Renewable Energy Tax Credit certificates was issued. The total includes credits awarded to wind and non-wind projects.
  - The tax credits are not refundable, but can be transferred to another taxpayer. Just over 95.0% of the tax credits awarded from 2007 through 2013 were transferred. For 2007 through 2014 and across the two tax credit programs, production tax credits were awarded through a variety of tax types, including:
    - Insurance Premium Tax -- 32.8% of awarded credits.
    - Corporate Income Tax -- 26.7%.
    - Franchise (Bank) Tax -- 17.6%.
    - Utility Property Tax Replacement Tax -- 15.7%.
    - Remaining Tax Types -- 7.2%.
  - The nameplate capacity of a wind turbine is the theoretical maximum output of the turbine at ideal wind and operating conditions. The actual energy production over time is an amount below the nameplate capacity. Actual energy production in a year divided by the theoretical maximum output is a percentage referred to as a turbine's "capacity factor." For the 2014 report, the Department of Revenue calculated that the capacity factor across all wind energy tax credit projects for both production tax credit programs was 18.4% in 2007, was 23.9% in 2008, and had increased to 38.7% in 2013.
  - According to 2017 USEIA data, there is 7,098.7 megawatts of operating nameplate wind energy capacity in Iowa, installed as 4,044 turbines. According to the IUB tax credit project list, 178.1 megawatts of nameplate

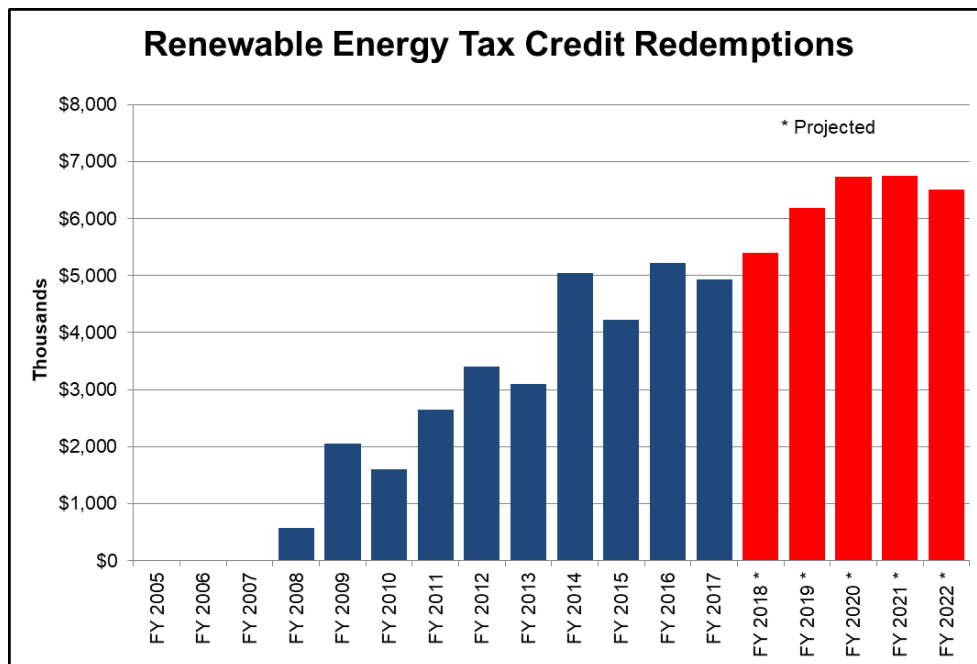
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<sup>1</sup> The IUB project list for the wind energy component of the Renewable Energy Tax Credit includes 70 projects. Combining projects with common locations and owners reduces the number of projects to 48.

wind energy capacity has qualified for State production tax credits through the two wind energy tax credit programs. The 178.1 megawatts earning tax credits represent 2.5% of the installed wind energy capacity in Iowa.<sup>2</sup>

The Department of Revenue reports on the annual credit usage for the Wind Energy Production Tax Credit in its periodic [Contingent Liabilities Report](#). Based on Table 9 of that report, the following table and graph provide credit redemption history and projections for the Renewable Energy Tax Credit on a fiscal year basis. The blue bars of the graph indicate actual credit redemptions, while the red bars are Department of Revenue projections of future redemptions. The drop-off in projected tax credit redemptions beginning with FY 2022 reflects the expiration of tax credit eligibility for projects that were placed in service early in the program's history.

<b>Renewable Energy Tax Credit History</b>			
* Projected			
Fiscal Year	Tax Credit Redemptions	Fiscal Year	Tax Credit Redemptions
FY 2005	\$ 0	FY 2014	\$ 5,045,426
FY 2006	0	FY 2015	4,229,188
FY 2007	1,500	FY 2016	5,220,257
FY 2008	569,517	FY 2017	4,932,838
FY 2009	2,045,735	FY 2018 *	5,398,155
FY 2010	1,604,923	FY 2019 *	6,178,125
FY 2011	2,652,502	FY 2020 *	6,733,638
FY 2012	3,397,627	FY 2021 *	6,751,913
FY 2013	3,090,814	FY 2022 *	6,510,352



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<sup>2</sup> The USEIA dataset covers wind energy projects that became operational from 1998 through 2017. Several projects on the IUB list of tax credit recipients do not appear in the USEIA list, so the actual installed capacity in Iowa is likely greater than 7,098.7 megawatts.